Species of trees and shrubs planted in Timisoara in the year 2008

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Abstract Timisoara is town with many green spaces, has nice parks which form an urban system which has a very important ecological and esthetic role. Though in the last forty years, trees have been planted all over the town, the green surfaces of Timisoara still do not match the requirements of the European Union. In order to achieve the necessary standards, the town hall of Timisoara decided to invest every year great sums of money in the green spaces. Streets and parks without enough vegetation in the past, and others where it is necessary to change or complete the vegetation get attention now. An important problem is the creation of diversity, because in Romania in the past few species of tree were produced by the local companies. Even today a great part of the material that is used is imported from Hungary and western countries which offer diversity and high quality.

In the year 2008 many green spaces of Timisoara were planted with trees and bushes. We should mention many species which were not present before in the town, or appeared very rarely only in special places. The European requirements impose that the green surfaces should extent in nearly all towns of Romania compared with the present situation. We must mention the following species planted in different regions of the town:

*Fraxinus ornus* (Manna Ash) is a species of *Fraxinus* native to southern Europe and southwestern Asia, from Spain and Italy north to Austria and the Czech Republic, and east through the Balkans, Turkey, and western Syria to the Lebanon. It is a medium-sized deciduous tree growing to 15–25 m tall with a trunk up to 1 m diameter. The bark is dark grey, remaining smooth even on old trees. The buds are pale pinkish-brown to grey-brown, with a dense covering of short grey hairs. The leaves are in opposite pairs, pinnate, 20–30 cm long, with 5–9 leaflets; the leaflets are broad ovoid, 5–10 cm long and 2–4 cm broad, with a finely serrated and wavy margin, and short but distinct petiolules 5–15 mm long; the autumn colour is variable, yellow to purplish. The flowers are produced in dense panicles 10–20 cm long after the new leaves appear in late spring, each flower with four slender creamy white petals 5–6 mm long; they are pollinated by insects. The fruit is a slender samara 1.5–2.5 cm long, the seed 2 mm broad and the wing 4–5 mm broad, green ripening brown.

It is frequently grown as an ornamental tree in Europe, north of its native range, grown for its decorative flowers (the species is also sometimes called "Flowering Ash"). Some cultivated specimens are grafted on rootstocks of *Fraxinus excelsior*, with an often very conspicuous change in the bark at the graft line to the fissured bark of the rootstock species

*Acer platanoides* (Norway Maple) is a species of maple native to eastern and central Europe and southwest Asia, from France east to Russia, north to southern Scandinavia and southeast to northern Iran. Fig. 1

It is a deciduous tree growing to 20–30 m tall with a trunk up to 1.5 m diameter, and a broad, rounded crown. The bark is grey-brown and shallowly grooved; unlike many other maples, mature trees do not tend to develop a shaggy bark. The shoots are green at first, soon becoming pale brown; the winter buds are shiny red-brown. The leaves are opposite, palmately lobed with five lobes, 7–14 cm long and 8–20 cm (rarely 25 cm) across; the lobes each bear one to three side teeth, and an otherwise smooth margin. The leaf petiole is 8–20 cm long, and secretes a milky juice when broken. The autumn colour is usually yellow, occasionally orange-red. The flowers are in corymbs of 15–30 together, yellow to yellow-green with five sepals and five petals 3–4 mm long; flowering occurs in early spring before the new leaves emerge. The fruit is a double samara with two winged seeds, the seeds are disc-shaped, strongly flattened, 10–15 mm across and 3 mm thick. The wings are 3–5 cm long, widely...
spread, approaching a 180° angle. It typically produces a large quantity of viable seeds. It is not particularly a long-lived tree, with a maximum age of around 250 years.

_Malus floribunda Royalty_ - crab apple is a beautiful small tree with excellent flowering in the spring. The flowers are deep pink to bright purple and are followed by non-edible dark purple small fruits. The leaves are small-ish as opposed to real apple, shiny, deep purple throughout the season. Very ornamental, suitable for planting next to bright green coloured trees. Fig. 2

_Corylus avellana Contorta_ - Hazel grows easily in average, medium, well-drained soil in full sun to part shade. This cultivar is usually sold in a grafted form, so root suckers should be promptly removed since they will not exhibit the characteristic contorted form. Periodic thinning may help accentuate the contorted form. After leaf drop, the contorted form of the branches becomes quite noticeable and provides winter interest. Fig. 3

_False Acacia_ - _Globe Robinia / Mop-head Robinia_ One of the fastest growing trees for the contemporary landscape is the Robinia Pseudoacacia or False Acacia. It grows naturally in woodland and thickets in the USA. _Robinia 'Umbraculifera' _sometimes known as the Globe Robinia or Mop-head Robinia is an attractive cultivar that rarely flowers, but it is the large alternate, pinnate leaves that are the attractive feature of this plant. The flowers are pendant racemes of pea-like flowers. The tree can be clipped for a formal look or can be pruned to make a hedge. The foliage is soft green and textured and it has the habit of growing a dense round head of fine branches. It is a deciduous tree and will grow between 7 and 10 metres. They are very adaptable. They suit dry climates, salty soils and coastal gardens, although shelter from strong winds, as the branches are brittle. Suckers from Robinia pseudoacacia may be a problem. They should be pruned back or can be left to create low layer of growth around the base of the trunk.

_Tilia_ is a genus in the family of Tiliaceae with about thirty species of trees, native throughout most of the temperate Northern Hemisphere. Lime trees grow on rich soils, fresh or moderately moist, Lime regenerates naturally.

_Pinus nigra_ - Austrian pine is a large evergreen specimen tree, maturing at about 25 years, tall about 20m in urban situations, but can reach much larger dimensions under optimum conditions with extreme maturity. It has upright oval to upright pyramidal growth habit in youth, becoming rounded and flat-topped with maturity. The growth rate is medium. Has two evergreen needles per bundle, to 8 cm long and stiff dark green, radiating from the very stout stems, and persisting for about five years on the stems. It is monoecious, flowering in late April and early May, and while noticeable they are ornamentally insignificant. The staminate flowers are in clustered orange-yellow catkins, while the pistillate flowers appear as small immature yellow-green "cones". Has gray-brown furrows and ridges are often hidden by the lower branches, unless the tree is limbed up with age. _Pinus nigra_ is a bold-textured, long-needled, and dark green Pine tree that is ideal for Midwestern soils and climates, but is plagued by a combination of being overplanted and being very susceptible to the fungal infection known as Diplodia Tip Blight.

_Hibiscus syriacus Rose of Sharon_ isn't a rose, but its large, flat blossoms and nectar attract hummingbirds and tiny insects that hummers also eat. The flowers on this woody shrub come in several colors, including white, pink, purple, and red. Its leaves don't come out until late in spring, causing false alarms in gardeners who think their plants may have died. Native to India and East Asia, it is the national flower of Korea. Fig. 4

_Buddleja davidii_ – Butterfly bush is a fast-growing and undemanding shrub from China. It is ideal for a wide range of positions in the garden, providing they are sunny and the soil is well-drained. The long, heavy flowering heads transform the bush and make a stunning display for four to six weeks, attracting clouds of butterflies. Prune hard in spring to keep plants within bounds. To propagate, take hardwood cuttings in winter. Fig. 5

_Juniperus sabina_ (Variegated Savin Juniper), Extremely hardy evergreen shrub that holds its color year round. Dwarf form which grows 2 to 3 feet high by 3 to 4 1/2 feet wide. Leaves are scale like, foliage is in sprays with white streaks. Nice foundation plant against large bare walls or useful in mass plantings. Tolerates hot, dry locations. Little maintenance required when established.

Other species that were planted in the year 2008 are: _Catalpa bignonioides_, _Catalpa erubescens_ Purpura, _spirea x Vanhouttei_, _Spirea ulmifolia_, _Malus baccata_, _Spirea humalda_, _Cotoneaster horizontalis_, _Deutzia gracilis Nikko_, _Forsythia intermedia_, _Kerria japonica_, _Tilia tomentosa_, _Tilia platyphyllos_, _Betula pendula_, _Juniperus sabina_, _Morus alba pendula_, _Thuja occidentalis_.

The list of streets on which the trees and shrubs were planted is the following: _Lunei_, _Matasarilor_, _Rovine_, _Samuil micu_, _Bontila_, _Titu Maiorescu_, _Cezar Bolian_, _Iosif Vulcan_, _Pindului_, _Zurich_, _Amurgului_, _Ialomita_, _Campina_, _Tigrului_, _Negruzzi_, _Albinelor_, _Calea Urseni_.

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Results and Discussions

The enumerated trees and shrubs will contribute to the creation of a better outlook of the streets of Timisoara. In contradiction with the past the diversity of species that can be seen in the town is greater now. The different colours of the leaves and flowers, the diversity of the forms and dimensions transform the streets and parks of the town. It is regrettable, that many plants are stolen causing damage to the Town Hall. Another problem is that most plants are imported from Hungary and other countries, though in our region exist some local producers in Santana-Arad, Dobra-Arad, Simeria, Ortisoara. The developing Romanian Market that absorbs greater and greater quantities of plants should be the basis of the local production.

Conclusions

1. The latest efforts of the authorities transform the image of the streets of Timisoara where more and more species of plants appear.

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References

2. Ciupa V., Radoslav R., Oarcea C., Oarcea Z.- Timisoara verde- Sistemul de spatii verzi ai Timisoarei, 2005

1. Acer platanoides

![Acer platanoides](image1)

2. Malus floribunda Royalty – crab apple

![Malus floribunda Royalty – crab apple](image2)
3. Corylus avellana Contorta

4. Hibiscus siryacus

5. Buddleja davidii